WHAT IS CLAIMED IS:

1. A method for inducing an immune response to a flavivirus viral antigen in a subject, comprising delivering a chimeric yellow fever virus expressing an envelope gene product of a flavivirus virus to a subject's skin using a device that abrades an epidermal layer of the skin's surface while delivering the chimeric virus.

2. The method of claim 1, wherein the flavivirus is Japanese encephalitis.

3. The method of claim 1, wherein the flavivirus is Dengue.

4. The method of claim 1, wherein the chimeric virus is delivered to an epidermal compartment of the subject's skin.

5. The method of claim 1, wherein the chimeric virus is delivered to an immune cell in the subject's skin.

6. The method of claim 5, wherein the immune cell is a dendritic cell or a Langerhan cell.

7. The method of claim 1, wherein the device is needleless.

8. The method of claim 1, wherein the device is a microabrader device.

9. The method of claim 1, wherein the device comprises at least one microneedle.

10. The method of claim 1 wherein the subject is a human.

11. A kit for use in inducing an immune response to a flavivirus viral antigen in a subject, said kit comprising: (a) a chimeric yellow fever virus expressing an envelope gene product of a flavivirus and (b) a device that abrades an epidermal layer of the skin's surface while delivering the chimeric virus.

12. The kit of claim 11, wherein the device is needleless.

13. The kit of claim 11, wherein the device is a microabrader device.

14. The kit of claim 11, wherein the device comprises at least one microneedle.

15. The kit of claim 11, wherein the flavivirus is Japanese Encephalitis or Dengue.